

52



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/420,720	10/20/1999	JENS-UWE JURGENSEN	450117-02106	3195

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NEW YORK, NY 10151

EXAMINER

NGUYEN, DUNG X

ART UNIT	PAPER NUMBER
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2631

DATE MAILED: 04/27/2004

11

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/420,720

Applicant(s)

JURGENSEN ET AL.

Examiner

Dung X Nguyen

Art Unit

2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 2, 5 - 9, 11, and 14 - 16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2, 5, 8, 9, 11 and 14 is/are rejected.
- 7) ☐ Claim(s) 6, 7, 15 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 October 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***DETAILED ACTION***

***Response to Arguments***

1. Applicant's arguments filed on March 31, 2004 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

3. **Claims 2, 5, 8, 9, and 14 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Dahlman et al. (US patent # 6,222,875 B1), further in view of Tsujimoto (US patent # 6,075,808).

Regarding claim 2, Dahlman et al. discloses:

- A plurality of despreading units for despreading (see blocks 50, 52 of figure 4) an input bitstream with spreading codes  $C_{scr}$  (column 3, lines 14 – 28);
- A set of  $k$  descrambling blocks (see blocks 60, 62 of figure 5) per despreading unit,  $k$  being an integer larger than 1;

While Tsujimoto teaches:

Art Unit: 2631

- An input bitstream with different spreading codes (see blocks 103.<sub>0</sub> – 103.<sub>n</sub> of figure 3A and column 5, lines 59 – 62), the input data being supplied to the receive site by means of delay line (see column 5, lines 62 – 67);
- A set of  $k$  descrambling units,  $k$  being an integer larger than 1 (see blocks 103.<sub>0</sub>–103.<sub>n</sub> of figure 3A and column 5, lines 59 – 62), are supplied with respective  $k$  scrambling codes (see column 5, lines 59 – 64).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Dahlman et al. and Tsujimoto to fulfill the limitations required by the instant claimed invention for improving the technique of detecting variable data transmission (Dahlman et al., column 1, lines 6 – 9).

Regarding claim 5, Dahlman et al. discloses:

- At least one despreading for despreading (see blocks 50, 52 of figure 4) an input bitstream with spreading codes  $C_{scr}$  (column 3, lines 14 – 28);
- A set of  $k$  descrambling blocks (see blocks 60, 62 of figure 5) per despreading unit,  $k$  being an integer larger than 1; and
- Channel estimators  $h^*_1$ ,  $h^*_2$  for generating channel estimation values (see figure 5 and column 6, lines 9 – 10);
- Multiplying circuits (blocks 72, 74 of figure 5) for multiplying the descrambled process from blocks 60, 62 with channel estimation values  $h^*_1$ ,  $h^*_2$  (column 6, lines 1 – 10).

While Tsujimoto teaches:

- An input bitstream with different spreading codes (see blocks 103.<sub>0</sub> – 103.<sub>n</sub> of figure 3A and column 5, lines 59 – 62), the input data being supplied to the receive site by means of delay line (see column 5, lines 62 – 67);
- A set of  $k$  descrambling units,  $k$  being an integer larger than 1 (see blocks 103.<sub>0</sub>–103.<sub>n</sub> of figure 3A and column 5, lines 59 – 62), are supplied with respective  $k$  scrambling codes (see column 5, lines 59 – 64).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Dahlman et al. and Tsujimoto to fulfill the limitations required by the instant claimed invention for improving the technique of detecting variable data transmission (Dahlman et al., column 1, lines 6 – 9).

Regarding claims 8 and 9, respectively, Dahlman et al. and Tsujimoto differ from the instant claimed inventions that they do not state their inventions used in CDMA mobile communication system. However, Tsujimoto discloses its invention to produce a code division multiplex signal (column 5, lines 56 – 59), and the main point here is detecting the information symbols have been respectively spread with an identical spreading code and scrambled with different scrambling codes. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement Dahlman et al. and Tsujimoto to fulfill the limitations required by the instant claimed inventions for improving the technique of detecting variable data transmission (column 1, lines 10 – 52 of Tsujimoto).

Regarding claim 11, the limitations are analyzed in the same manner set forth as claim 2.

Regarding claim 14, the limitations are analyzed in the same manner set forth as claim 5.

***Allowable Subject Matter***

5. **Claims 6, 7, 15, and 16 are objected** to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Contact Information***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung X. Nguyen whose telephone number is (703) 305-4892. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:30 PM.

Art Unit: 2631

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Ghayour Mohammad H. can be reached on (703) 306-3034. The fax phone numbers for this group is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800.

DXN

April 19, 2004

A handwritten signature in black ink, consisting of a large, stylized 'E' followed by a long horizontal stroke and a smaller, more complex mark below it.